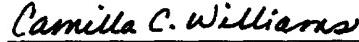


FORM PTO-1390 (REV. 1-98) <b>TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A FILING UNDER 35 U.S.C. 371</b>		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE  ATTORNEY'S DOCKET NUMBER <b>40198/181160 (CAN100)</b>
INTERNATIONAL APPLICATION NO. <b>PCT/IB00/00426</b>	INTERNATIONAL FILING DATE <b>07 April 2000 (07.04.2000)</b>	U.S. APPLICATION NO. (If known, see 37 CFR 1.5) <b>09/937542</b>
PRIORITY DATE CLAIMED <b>09 April 1999 (09.04.1999)</b>		
TITLE OF INVENTION <b>SCALPEL ASSEMBLY</b>		
APPLICANT(S) FOR DO/EO/US <b>BELL, Michael S.G.; LEE, Leonard G.; O'MALLEY, Michael T.; MAXWELL, Timothy J.</b>		
Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:		
<p>1. <input checked="" type="checkbox"/> This is a FIRST submission of items concerning a filing under 35 U.S.C. 371.</p> <p>2. <input type="checkbox"/> This is a SECOND or SUBSEQUENT submission of items concerning a filing under 35 U.S.C. 371.</p> <p>3. <input type="checkbox"/> This express request to begin national examination procedures (35 U.S.C. 371(f)) at any time rather than delay examination until the expiration of the applicable time limit set in 35 U.S.C. 37 (b) and PCT Articles 22 and 39(1).</p> <p>4. <input checked="" type="checkbox"/> A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date.</p> <p>5. <input checked="" type="checkbox"/> A copy of the International Application as filed (35 U.S.C. 371(c)(2))           <ul style="list-style-type: none"> <li>a. <input checked="" type="checkbox"/> is transmitted herewith (required only if not transmitted by the International Bureau).</li> <li>b. <input type="checkbox"/> has been transmitted by the International Bureau.</li> <li>c. <input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US).</li> </ul> </p> <p>6. <input type="checkbox"/> A translation of the International Application into English (35 U.S.C. 371(c)(2)).</p> <p>7. <input type="checkbox"/> A translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371 (c)(3)).</p> <p>8. <input type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))           <ul style="list-style-type: none"> <li>a. <input type="checkbox"/> are transmitted herewith (required only if not transmitted by the International Bureau).</li> <li>b. <input type="checkbox"/> have been transmitted by the International Bureau.</li> <li>c. <input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired.</li> <li>d. <input type="checkbox"/> have not been made and will not be made.</li> </ul> </p> <p>9. <input checked="" type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4))</p> <p>10. <input type="checkbox"/> A translation of the annexes of the International Preliminary Examination Report under PCT Article 36</p> <p>11. <input type="checkbox"/> An Information Disclosure Statement under 37 CFR 1.197 and 1.98</p> <p>12. <input type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.</p> <p>13. <input type="checkbox"/> A FIRST preliminary amendment.</p> <p><input type="checkbox"/> A SECOND or SUBSEQUENT preliminary amendment.</p> <p>14. <input type="checkbox"/> A substitute specification.</p> <p>15. <input type="checkbox"/> A change of power of attorney and/or address letter.</p> <p>16. <input checked="" type="checkbox"/> Other items or information:</p>		
<p>I hereby certify that this Transmittal Letter to the United States Designated/Elected Office (DO/EO/US) Concerning a Filing under 35 U.S.C. 3.71, along with any paper referred to as being attached or enclosed, is being deposited with the United States Postal Service on the <u>26</u> day of September 2001 in an envelope as "Express Mail Post Office to Addressee" service under 37 CFR 1.10, Mailing Label Number EL670010187US addressed to the Box PCT, Commissioner for Patents, Washington, D.C. 20231.</p> <p><i>Wessa S. Roberts</i></p>		

U.S. APPLICATION NO. (If known, see 37 CFR 1.5)	INTERNATIONAL APPLICATION NO.	ATTORNEY'S DOCKET NUMBER			
<b>09/937542</b>	<b>PCT/IB00/00426</b>	<b>40198/181160 (CAN100)</b>			
17. <input checked="" type="checkbox"/> The following fees are submitted BASIC NATIONAL FEE (37 CFR 1.492(a)(1)-(5)):		CALCULATIONS PTO USE ONLY			
Neither international preliminary examination fee (37 CFR 1.482) nor international search fee (37 CFR 1.445(a)(2) paid to USPTO and International Search Report not prepared by the EPO or JPO		\$1000.00			
International preliminary examination fee (37 CFR 1.482) not paid to USPTO but International Search Report prepared by the EPO or JPO		\$860.00			
International preliminary examination fee (37 CFR 1.482) not paid to USPTO but international search fee (37 CFR 1.445(a)(2) paid to USPTO		\$710.00			
International preliminary examination fee (37 CFR 1.482) paid to USPTO but all claims did not satisfy provisions of PCT Article 33(1)-(4)		\$690.00			
International preliminary examination fee (37 CFR 1.482) paid to USPTO and all claims satisfied provisions of PCT Article 33(1)-(4)		\$100.00			
<b>ENTER APPROPRIATE BASIC FEE AMOUNT</b>		= \$ 860.00			
Surcharge of \$130.00 for furnishing the oath or declaration later than <input type="checkbox"/> 20 <input checked="" type="checkbox"/> 30 months from the earliest claimed priority date (37 CFR 1.492(e)).		\$ 0.00			
CLAIMS		NUMBER FILED	NUMBER EXTRA	RATE	
Total claims		- 20 =		X \$18.00	\$ 0.00
Independent claims		- 3 =		X \$80.00	\$ 0.00
MULTIPLE DEPENDENT CLAIM(S) (if applicable)				+ \$270.00	\$ 0.00
<b>TOTAL OF ABOVE CALCULATIONS</b>		=		\$ 860.00	
Reduction of $\frac{1}{2}$ for filing by small entity, if applicable <input type="checkbox"/> Applicant claims small entity status (37 CFR 1.22) 50% reduction -				\$ 0.00	
<b>SUBTOTAL</b>		=		\$ 860.00	
Processing fee of \$130.00 for furnishing the English translation later than <input type="checkbox"/> 20 <input type="checkbox"/> 30 months from the earliest claimed priority date (37 CFR 1.492(f)).				\$ 0.00	
<b>TOTAL NATIONAL FEE</b>		=		\$ 860.00	
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40 per property				\$ 40.00	
<b>TOTAL FEES ENCLOSED</b>		=		\$ 900.00	
			Amount to be refunded:	\$	
			charged:	\$	
<p>a. <input checked="" type="checkbox"/> A check in the amount of \$900.00 to cover the above fees is enclosed.</p> <p>b. <input type="checkbox"/> Please charge my Deposit Account No. 11-0855 in the amount of \$ _____ to cover the above fees. A duplicate copy of this sheet is enclosed.</p> <p>c. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 11-0855. A duplicate copy of this sheet is enclosed.</p>					
NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b) must be filed and granted to restore the application to pending status.					
CORRESPONDENCE ADDRESS:		CUSTOMER NUMBER BAR CODE LABEL: 			
John S. Pratt, Esq.		SIGNATURE 			
KILPATRICK STOCKTON LLP		Name: Camilla C. Williams			
1100 Peachtree Street, Suite 2800		Registration No. 43,992			
Atlanta, Georgia 30309-4530		PATENT TRADEMARK OFFICE			

SCALPEL ASSEMBLYRELATED APPLICATION DATA

This application claims priority under U.S. law to U.S. Patent Application No. 5 60/128,529 filed April 9, 1999, entitled "Scalpel Assembly" which is hereby incorporated by reference.

BACKGROUND OF THE INVENTION

## 10 1. Field of the Invention

This invention relates to a scalpel having a releasable, detachable or disposable blade and a reusable scalpel assembly.

## 15 2. Description of Related Art

Surgical scalpels have long been available, including such devices utilizing detachable or disposable blades that have a keyed or keyhole shaped slot. There is a need for a scalpel with better ergonomic properties. In addition, there is a need for a scalpel assembly that allows easy installation of a blade and that allows easy, safe release of a detachable or disposable blade and that can be manipulated with one hand. There is also a need for such a scalpel assembly to be durable and able to withstand repeated autoclaving and other sterilization techniques.

20

SUMMARY OF THE INVENTION

This invention is a scalpel assembly for disposable or detachable blades ejectable with the push of a button. This allows a used or contaminated blade to fall freely from the scalpel assembly into a disposal receptacle, such as a sharps container, without direct contact of medical personnel with the used or contaminated blade. A conventional disposable or detachable blade having a keyed slot is utilized and engaged by a blade bar that extends from a handle assembly. This blade bar may be extended with one hand by manipulating a push button or other actuator, releasing the blade from the handle. The push button is located on the handle remote from the blade, so that contact between the user's fingers and the blade is unnecessary and unlikely.

Accordingly, it is a feature of this invention to provide a scalpel assembly that allows release of a blade without requiring medical personnel to touch the blade.

It is a further feature of this invention to provide a scalpel assembly that allows release of a blade by manipulation with one hand.

5 Another feature of this invention is to provide a scalpel assembly that allows easy blade installation.

It is another feature of this invention to provide a scalpel assembly that is durable, and capable of withstanding repeated sterilization.

10 Another feature of this invention is to provide a scalpel assembly with desirable ergonometric properties.

This invention can be better understood by reference to the Brief Description of the Drawings, which should not be interpreted to limit the scope thereof.

#### BRIEF DESCRIPTION OF THE DRAWINGS

15 FIG. 1 is an exploded perspective view of one embodiment of the scalpel handle assembly of this invention.

FIG. 2 is an exploded perspective view of the handle body assembly of the scalpel assembly shown in FIG. 1.

FIG. 3 is a side elevation view of the assembled handle body assembly of FIG. 2.

20 FIG. 4 is an exploded perspective view of a button assembly forming a part of the scalpel assembly of one embodiment of this invention.

FIG. 5 is a side elevation assembly view of the button assembly of FIG. 4.

FIG. 6 is a top plan view of the proximal portion of the blade bar of this invention.

FIG. 7 is a side elevation of the proximal portion of the blade bar of this invention.

25 FIG. 8 is a top plan view of the scalpel assembly of FIG. 1.

FIG. 9 is a side elevation view of the scalpel assembly of FIG. 1.

FIG. 10 is a longitudinal section view of the push rod shown in FIG. 1.

FIG. 11 is a side elevation section view of the button retainer shown in FIG. 1.

FIG. 12 is a side elevation view in section of the button shown FIG. 1.

FIG. 13 is a perspective view of a collet core forming part of the handle body assembly shown in FIG. 8.

FIG. 14 is an end elevation view of the collet core of FIG. 13.

FIG. 15 is a side elevation section view of the collet core of FIG. 13.

5 FIG. 16 is a perspective view of the collet of the handle body assembly of FIG. 2.

FIG. 17 is an enlarged end elevation view of the collet of FIG. 16.

FIG. 18 is a side elevation section view of the collet of FIG. 16.

FIG. 19 is a side elevation view of a push rod forming part of the button assembly of an alternative embodiment of this invention.

10 FIG. 20 is a side elevation section view, in section, of the button forming part of a button assembly of an alternative embodiment of this invention.

FIG. 21 is a side elevation view, in section, of the button retainer forming part of the handle assembly of an alternative embodiment of this invention.

#### DETAILED DESCRIPTION

This invention relates to a scalpel having an easily detachable, optionally disposable blade that can be removed by actuation of a button with the same hand holding the scalpel assembly. This eliminates the need for medical personnel to handle or touch the blade after the blade has come into contact with surgical patients or their body fluids.

20 The scalpel is an ergonomic surgical instrument, and the disposable or detachable scalpel blade need be handled only when it is sterile and is being attached to the scalpel assembly, if at all. In a more particular embodiment of this invention, the scalpel assembly comprises an attachment mechanism for receiving and engaging a disposable or detachable scalpel blade, and may desirably be adapted to receive and engage  
25 conventional scalpel blades. As used in the description of the scalpel assembly of this invention, a proximal end is one nearer to the blade tip and a distal end is one remote from the blade tip.

30 The scalpel assembly includes a handle body, which provides a surface for the surgeon or medical personnel to grip the scalpel during transport or use. A button assembly inside the handle body serves to allow attachment and detachment of the blade

from the scalpel assembly. The handle assembly is made up of a collet core, a collet, a handle body, and a button retainer. The collet houses the collet core. The proximal end of the handle body is attached to the collet. The interior surface of the distal end of the handle body is adapted to receive and engage the proximal end of the button retainer after the button assembly is inserted into the handle assembly. The button assembly is made up of a blade bar, a spring, which may be tapered, a push rod, and a button. The blade bar contains a groove and heel forming a tang, which allows it to engage a blade. The proximal end of the spring engages the interior of the handle assembly, desirably toward the proximal end. For example, the spring may engage the distal end of the collet. The distal end of the spring is engaged by the push rod. The distal end of the blade bar is engaged with the proximal end of the push rod. The proximal end of the button is attached to the distal end of the push rod. Alternatively, two or more of the button, the push rod and the blade bar may be an integral component. Depression of the button compresses the spring and extends the blade bar, disengaging the blade. In alternative embodiments, the push rod may be actuated by a button, lever, slide or other mechanism located intermediate the ends of the handle rather than at the handle's distal end.

This invention is described below by reference to the drawings; however, it should be understood that the drawings are directed to a specific embodiment of the invention and do not limit the scope thereof.

As shown in FIG. 1, the scalpel assembly 86 of one embodiment of this invention includes a handle body assembly 40 and a button assembly 78. The handle body assembly of this embodiment contains collet core 20 housed within collet 22. Collet core 20 is penetrated by bore 24, which provides for movement of blade bar 44 in and out of, and laterally within, collet core 20 during engaging and releasing of the blade 50 in response to depressing button 76. Collet core 20 also contains a pair of sloping front surfaces 21 and 23. Collet core 20 is inserted into collet hole 26 of collet 22 with a press fit, as shown in FIGS. 2 and 3. Distal end 28 of collet 22 is inserted into body bore 29 at proximal end 30 of handle body 32 with a press fit, as shown in FIGS. 2 and 3. In an alternative embodiment, either the button assembly, the handle body assembly, or both,

may be manufactured as a single unit. Proximal end 34 of button retainer 36 is connected to distal end 38 of handle body 32.

The button assembly 78 contains blade bar 44, tapered coiled spring 56, push rod 62, and button 76. As best shown in FIGS. 6 and 7, proximal end 42 of blade bar 44 contains a groove 46. Grove 46 in the proximal end 42 of blade bar 44 and extending along portions of two of the blade bar's opposed sides, and a heel 45, define a tang 47 that is received in keyed slot 48 in blade 50. When tang 47 is inserted in keyed slot 48 of blade 50, the narrower portion of keyed slot 48 engages the u-shaped groove 46 in proximal end 42 of blade bar 44.

Reduced diameter distal end 52 of blade bar 44 enters proximal end 54 of tapered coiled spring 56, telescopes through tapered coiled spring 56, and is received in push rod bore 58 in proximal end 60 of push rod 62. Tapered coiled spring 56 is telescopingly connected to proximal end 60 of push rod 62, so that smaller diameter distal end 64 of tapered coiled spring 56 is captured by notch 66 on push rod 62. As shown in FIGS. 1 and 4, distal end 68 of push rod 62 contains a recess or flat surface 70. This recess 70 allows air to escape when reduced diameter distal end 68 of push rod 62 is telescopingly inserted into button bore 72 in proximal end 74 of button 76.

FIGS. 4 and 5 illustrate how blade bar 44, tapered coiled spring 56, push rod 62 and button 76 combine to form button assembly 78. Blade bar 44 is formed at an angle 79 to allow blade 50 to be freely inserted or removed in the extended position of the scalpel assembly, and held in place on blade bar 44 upon retraction, further described below. Button assembly 78, shown in FIG. 5, is inserted into handle assembly 40, shown in FIG. 3, before button retainer 36 is connected to distal end 38 of handle body 32. Button retainer 36 is then connected to distal end 38 of handle body 32 so that button 76 passes through button retainer bore 80. Proximal end 34 of button retainer 36 is threadedly connected to distal end 38 of handle body 32. Proximal end 74 of button 76 is held in place in handle body 32 by button retainer 36. Scalpel assembly 86 is shown in FIGS. 8 and 9.

FIG. 10 shows push rod 62. Push rod bore 58 is located at proximal end 60 of push rod 62. Recess 70 is located at distal end 68 of push rod 62. Push rod 62 has

annular depression or notch 66. As shown in FIG. 11, distal end 88 of button retainer 36 can be knurled to make disassembly easier. Threads 92 on button retainer 36 allow button retainer 36 to be joined to distal end 38 of handle body 32. FIG. 12 shows button 76, which has button bore 72 at proximal end 74.

5 FIGS. 13, 14 and 15 depict collet core 20. Proximal end 94 of collet core 20 contains longitudinally oriented, centered slit 96 positioned transverse to the wider dimension of bore 24. Collet core 20 has collet core bore 24 that has a greater height (in FIG. 14) than width and may be oval as shown, rectangular or another appropriate shape that confines side-to-side bar movement along slit 96 and permits such movement  
10 transverse to slit 96. Collet 22 is depicted in FIGS. 16, 17 and 18. FIGS. 16 and 18 show threads 98 on collet 22.

Retraction of blade bar 44 secures blade 50 by positioning distal end 100 of blade 50 within slit 96 of collet core 20, so that blade 50 is held in place on blade bar 44. Blade bar angle 79 allows blade 50 to be inserted and removed from blade bar 44 when the handle is in an extended position, and holds blade 50 in place, coaxial with or parallel to the longitudinal axis of the handle, upon retraction. As can best be seen in FIGS. 6 and 7, blade bar 44 is bent so that proximal end 42 is at an acute angle 79 relative to distal end 52 (and the longitudinal axis 51 of the button assembly 78 and scalpel assembly 86). Groove 46 is positioned at an acute angle 81 (at least approximately equal to angle 79)  
20 relative to the tang face 83 of blade bar 44. This causes blade 50 to be at least approximately coaxial with the longitudinal axis of scalpel assembly 86 when blade 50 is secured in scalpel handle assembly 86.

Collet core 20 has slit 96, which traps blade 50 upon retraction. Front surfaces 21 and 23 each slope toward slit 96, thereby serving to guide distal end 52 of blade bar 44 into slit 96 when blade bar 44 retracts into collet core bore 24, drawing blade 50 back with it. The oval shape of bore 24 allows blade bar 44 to move perpendicular to slit 96 as blade bar 44 is guided into slit 96 by one or both of the pair of front surfaces 21 and 23. The slit urges the distal end of blade 50 toward blade bar 44, thereby retaining the keyed slot 48 in blade 50 on heel 45 of tang 47. Tapered coiled spring 56 retracts the blade bar

44, securing blade 50 in the scalpel assembly 86 while the flared larger diameter end of spring 58 permits the above-described lateral movement of blade bar 44.

Blade 50 may be released with one hand by pressing of button 76. Depression of button 76 forces blade bar 44 out of proximal end 94 of collet core 20 so that blade 50 is discharged from slit 96 in collet core 20 and blade 50 disengages from blade bar 44. This allows easy installation and push button ejection of blade 50.

This invention may be formed from any durable metals, including aluminum, stainless steel, and autoclavable plastics. The scalpel may be made in any desired size, although typical handle lengths range between 3.5 and 6 inches and typical handle diameters range between .330 and .750 inch. The shape of the handle may vary from full round to oval or multi-faceted shapes in order to suit a range of ergonomic considerations.

FIG. 19 depicts an alternative push rod 102, for use in the scalpel assembly of this invention. FIG. 20 depicts an alternative button 104, for use in the scalpel assembly of this invention. FIG. 21 depicts an alternative button retainer 106 for use in the scalpel assembly of this invention.

The invention has been described by reference to specific embodiments, but is not limited to these embodiments. The invention extends to all variations and equivalents thereof within the scope of the following claims, as would be apparent to those of skill in the art.

Claims:

1. 1. A handle assembly for a detachable scalpel blade having a keyed slot, the handle assembly comprising:
  3. (a) a handle body having a longitudinal axis, and
  4. (b) a blade bar having a portion protruding from the handle body for engaging
  5. the blade and urging the blade into engagement with the handle body.
1. 2. The assembly of claim 1, further comprising a spring for urging the bar.
1. 3. The assembly of claim 1, wherein the blade is received in a groove in the protruding portion of the bar.
1. 4. The assembly of claim 2, wherein the spring comprises a tapered, coiled spring.
1. 5. The assembly of claim 1, wherein the bar is bent and the groove is approximately parallel to the longitudinal axis.
1. 6. The assembly of claim 1, further comprising a collet having a through bore within which the blade bar is disposed.
1. 7. The assembly of claim 6, wherein the collet has a slit within which an end of the blade is received.
1. 8. The assembly of claim 6, wherein the collet has at least one sloping face for guiding the blade into the slit.
1. 9. The assembly of claim 6, wherein the collet has a pair of faces sloping toward the slit for guiding the blade end into the slit.

1 10. The assembly of claim 6, wherein the bore is sized and shaped to permit the bar to  
2 move laterally along one axis orthogonal to the longitudinal axis.

1 11. The assembly of claim 6, wherein the bore has a generally oval cross-sectional  
2 shape so that the bar can move laterally within the bore along one axis orthogonal to the  
3 longitudinal axis.

1 12. The assembly of claim 1, wherein the bar is coupled to an actuator for urging the  
2 protruding portion of the bar out of the handle assembly for removing the blade from the  
3 bar or mounting the blade on the bar.

1 13. The assembly of claim 12, wherein the actuator is a button attached to a rod  
2 attached to the bar.

1 14. The assembly of claim 13, wherein the rod has two ends and the bar attaches to  
2 one end and the button attaches to the other end.

1 15. The assembly of claim 1, wherein the handle body further comprises:  
2 (a) a handle grip,  
3 (b) a collet having a proximal end, and  
4 (c) a collet core.

1 16. The assembly of claim 15, wherein the handle grip has a generally oval cross-  
2 sectional shape.

1 17. The assembly of claim 15, wherein the handle grip further comprises ribs.

1 18. The assembly of claim 15, wherein the collet flares at its proximal end.

1 19. The assembly of claim 1, further comprising a retainer for capturing the rod within  
2 the handle body.

1 20. The assembly of claim 19, wherein the retainer is attached to the handle body with  
2 mating threads.

1 21. A handle assembly for a detachable scalpel blade having a keyed slot, the handle  
2 assembly comprising:

3 (a) a handle body having a longitudinal axis,

4 (b) protruding from the handle body a blade bar having a tang for insertion in  
5 the keyed slot, and

6 (c) a spring for urging the blade bar into the handle body.

1 22. The assembly of claim 21, wherein the tang is defined by a groove and a heel.

1 23. The assembly of claim 21, further comprising a collet.

1 24. The assembly of claim 23, wherein the collet further comprises a through bore  
2 within which the blade bar is positioned.

1 25. The assembly of claim 24, wherein the collet further comprises a slot.

1 26. The assembly of claim 25, wherein the collet further comprises at least one face  
2 sloping toward the slot.

1 27. The assembly of claim 26, wherein the at least one sloping face guides the blade  
2 end into the slot thereby preventing the blade from disengaging from the heel.

1/8

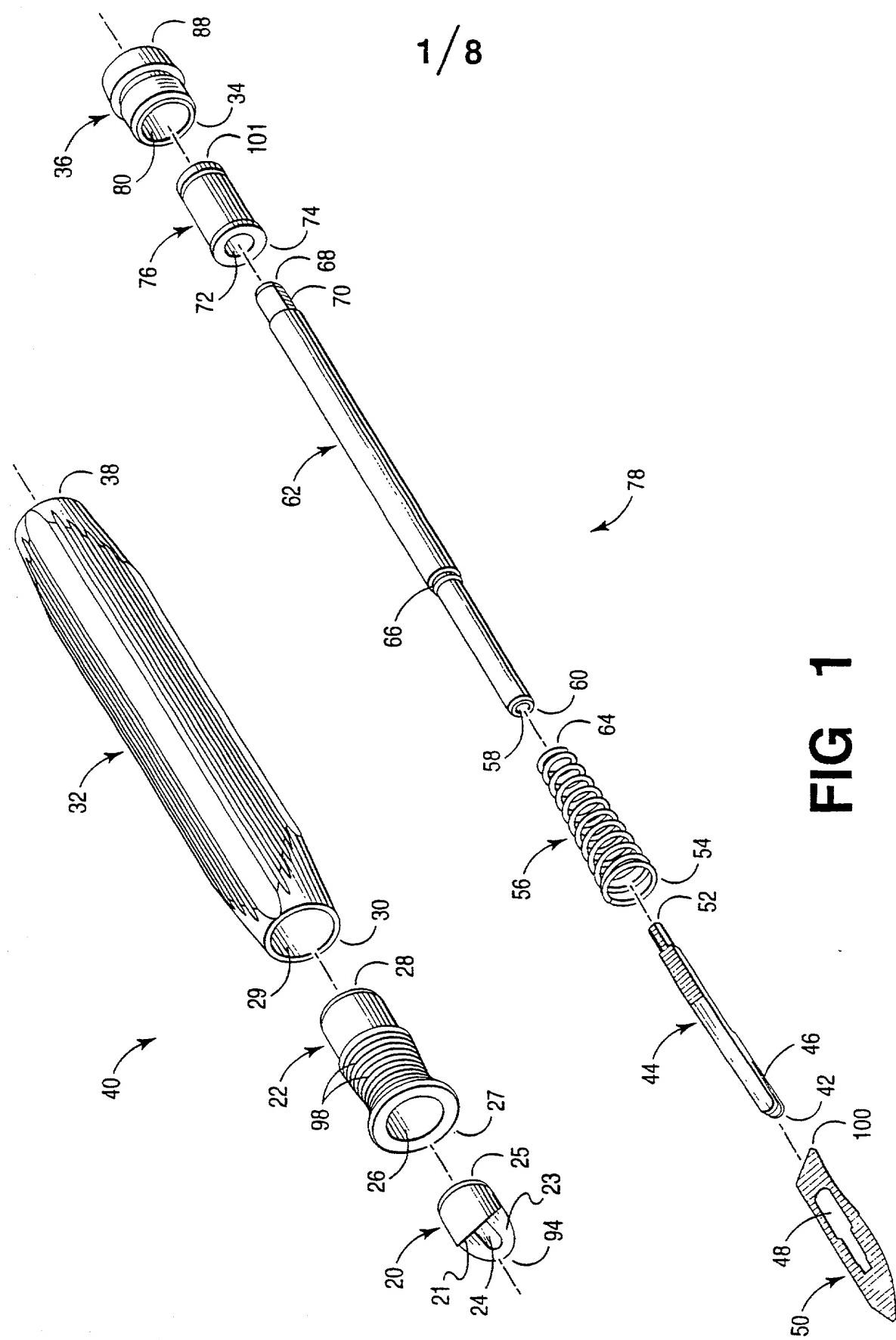


FIG 1

2 / 8

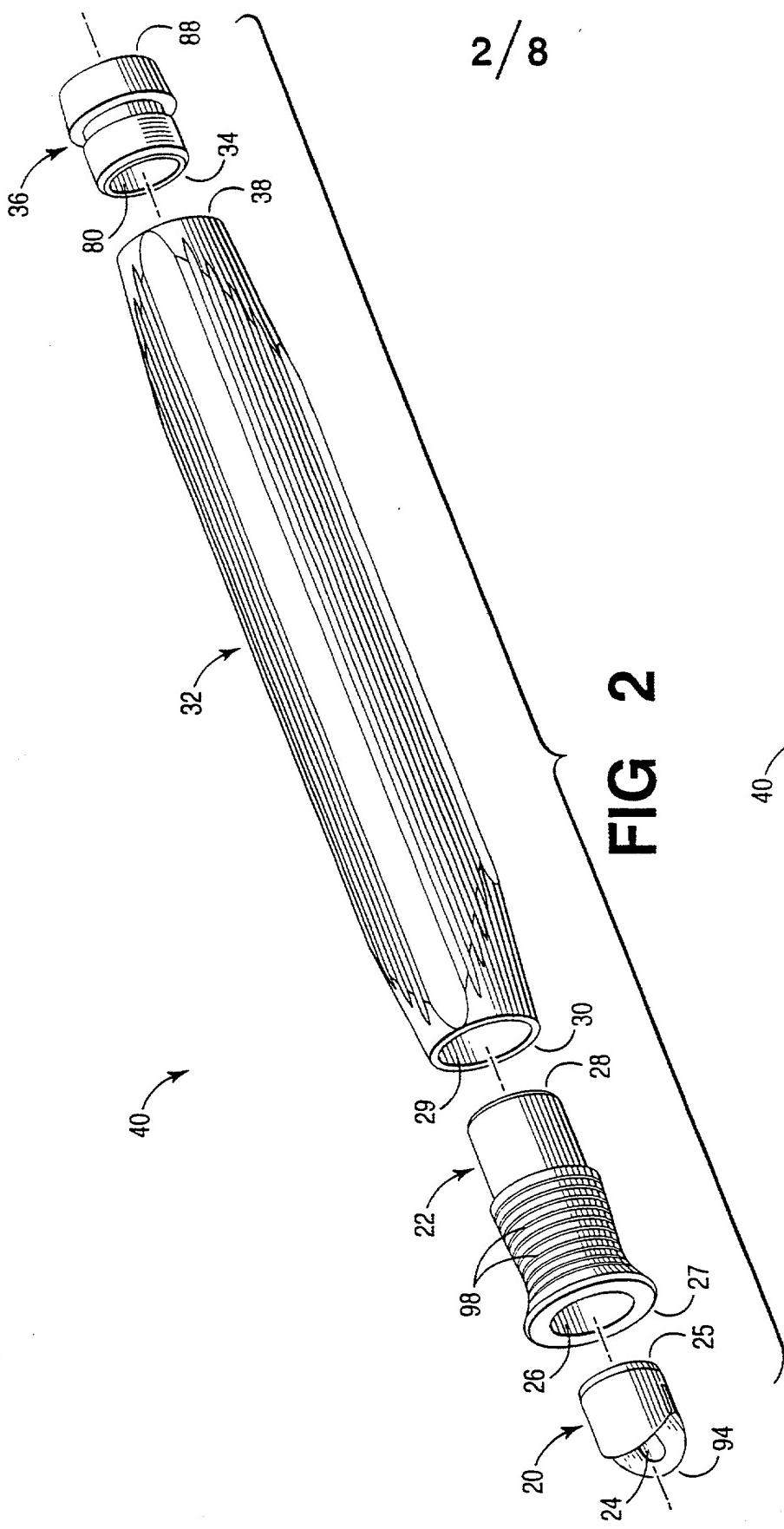


FIG 2

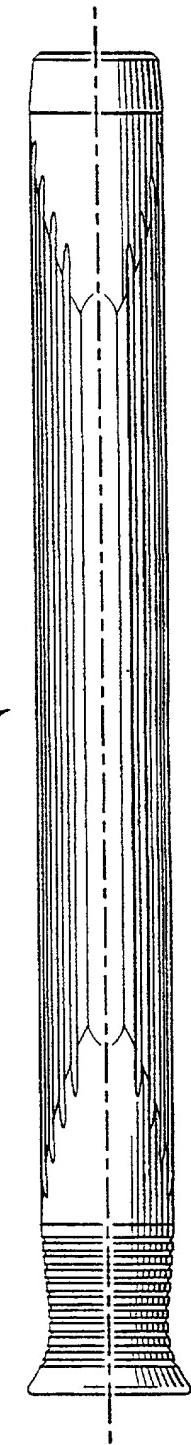
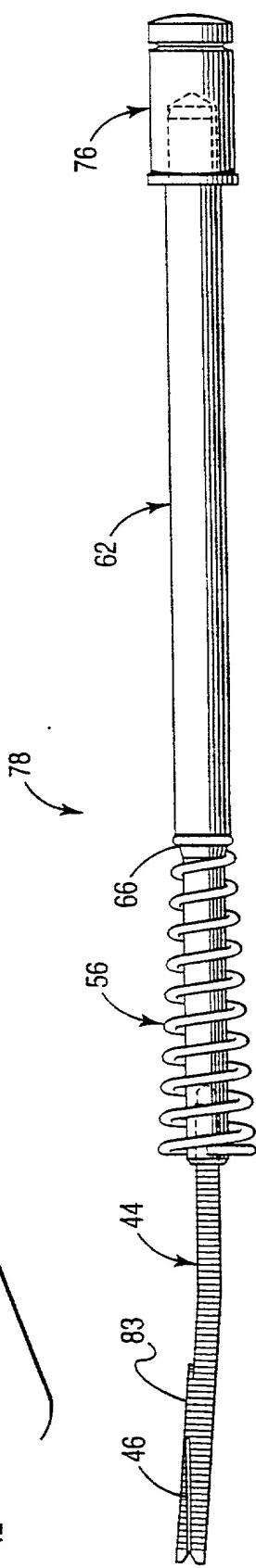
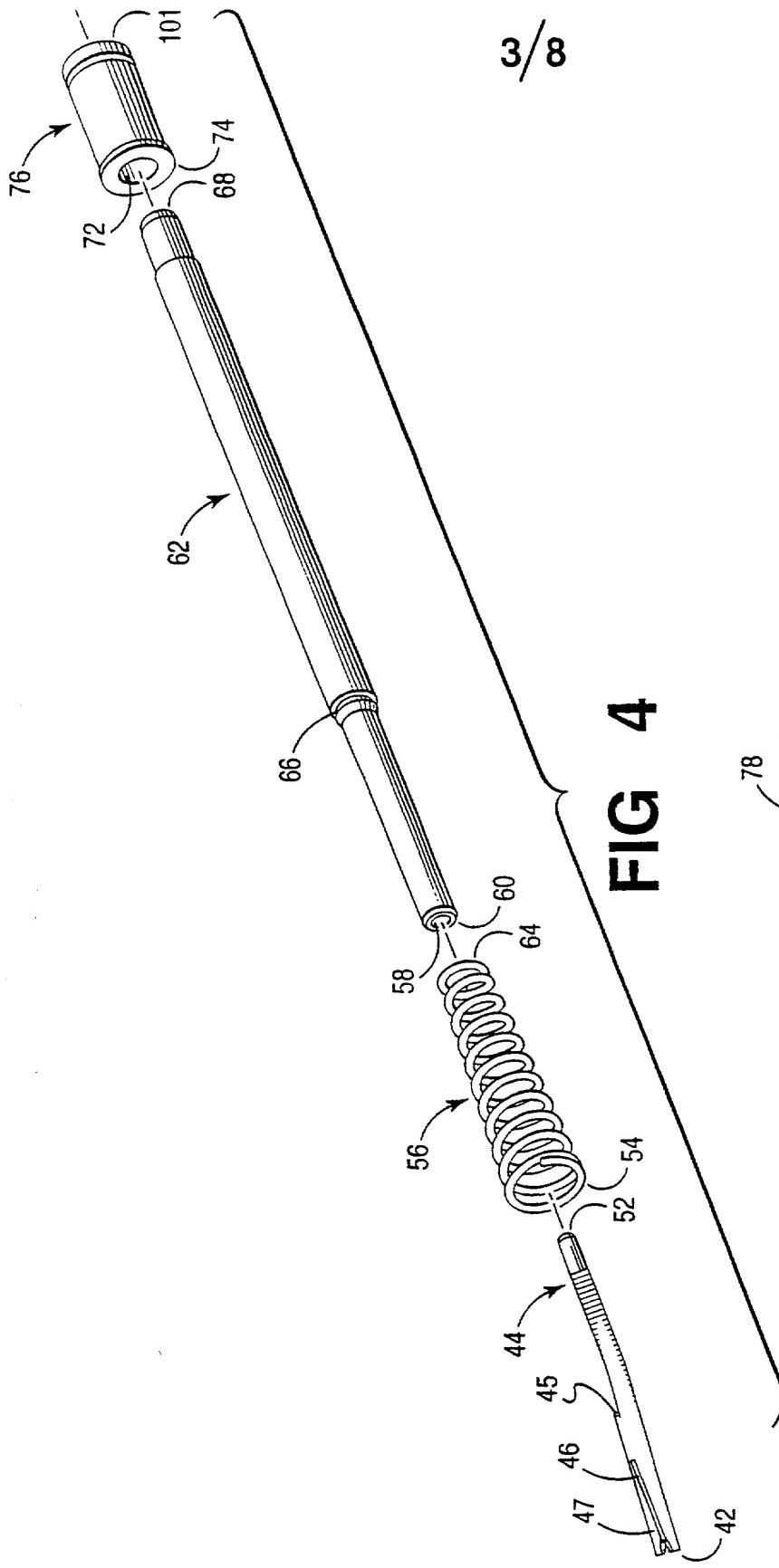
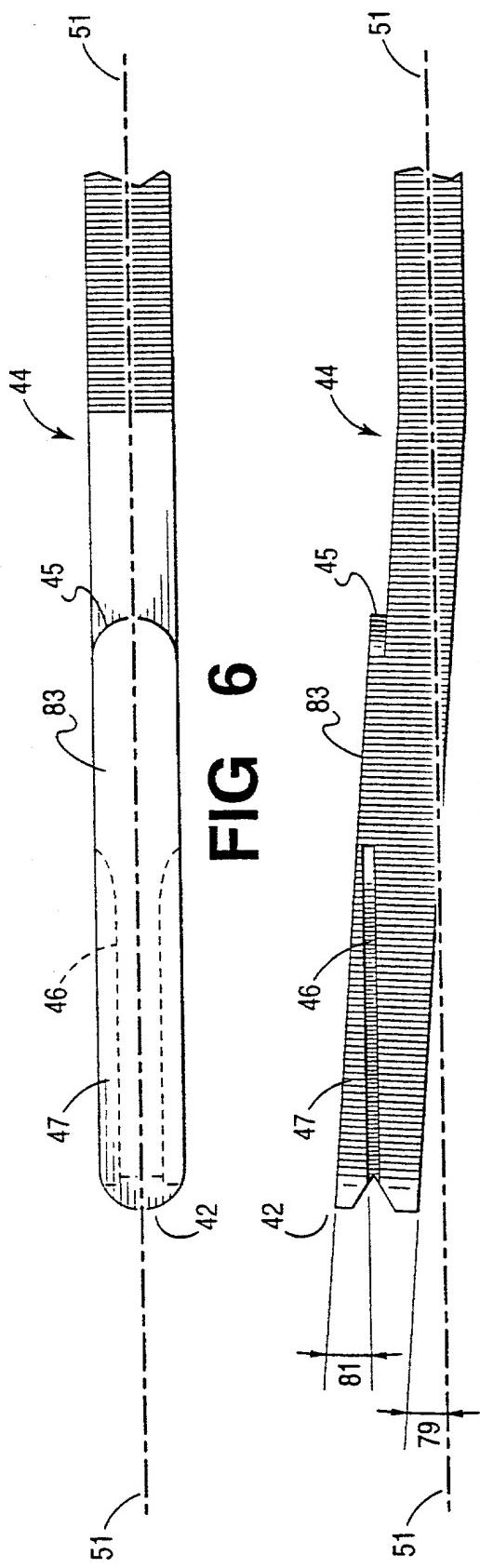


FIG 3





4 / 8

FIGURE 7

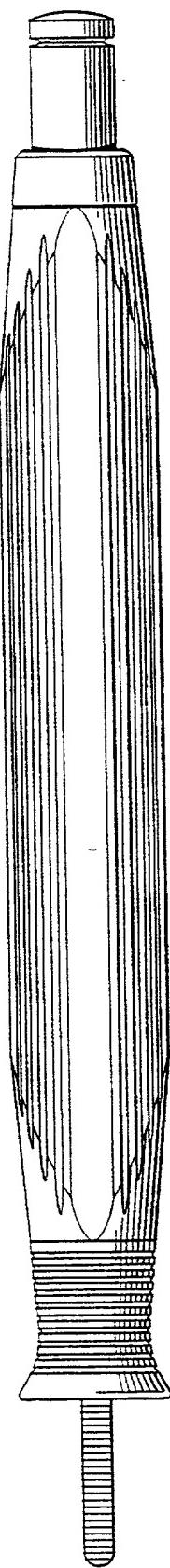


FIGURE 8

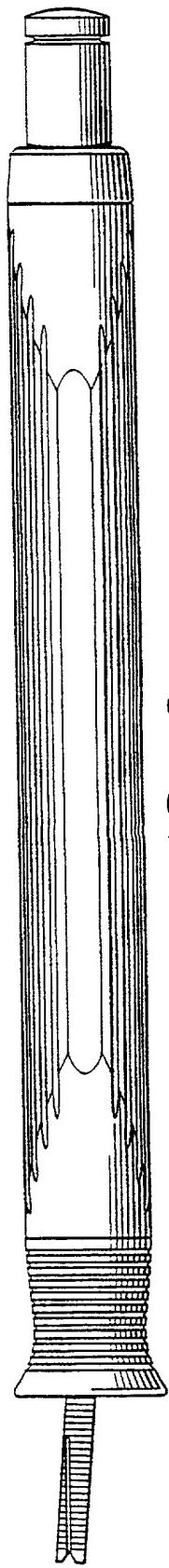
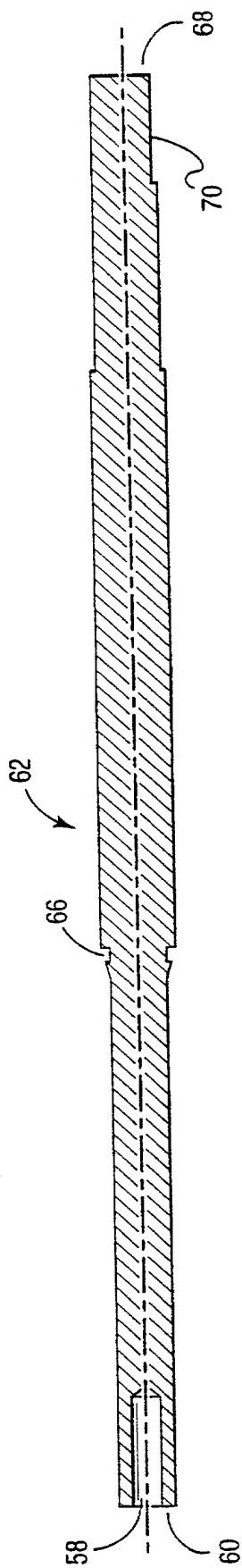
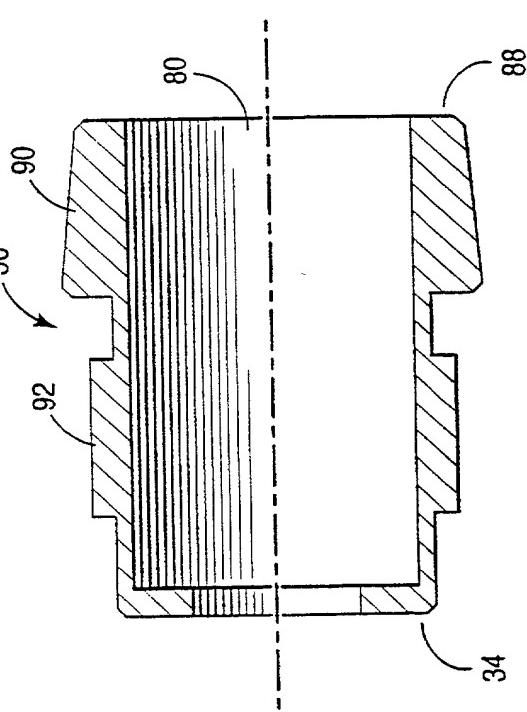


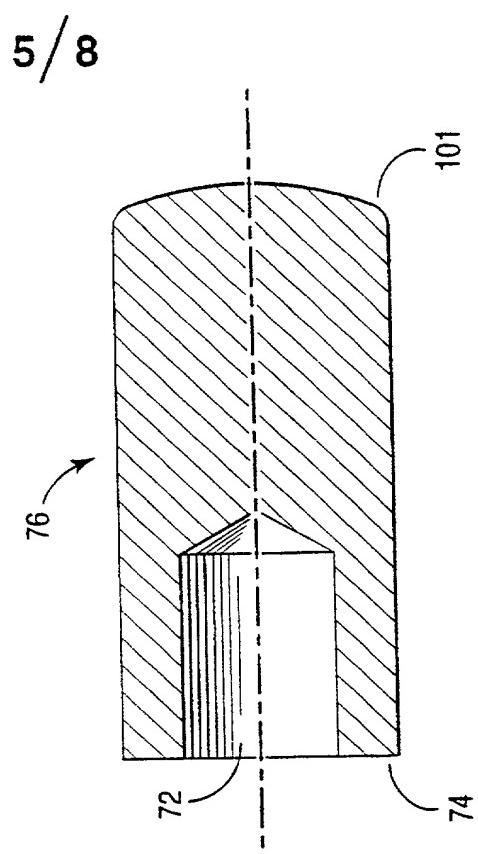
FIGURE 9



**FIG 10**



**FIG 11**



**FIG 12**

6 / 8

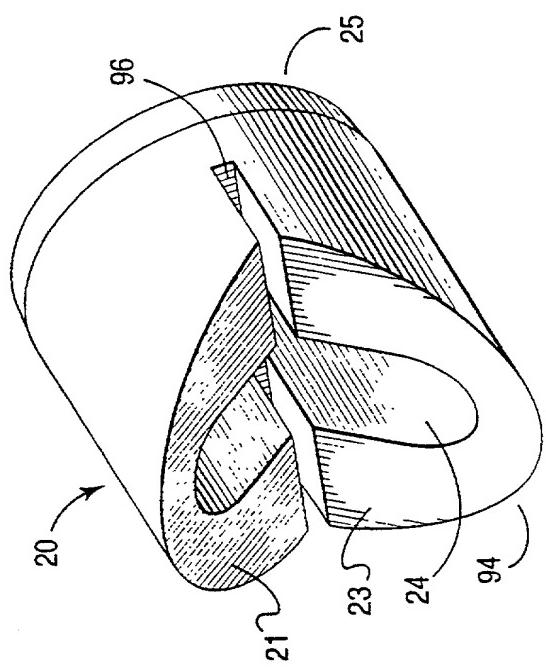


FIG 13

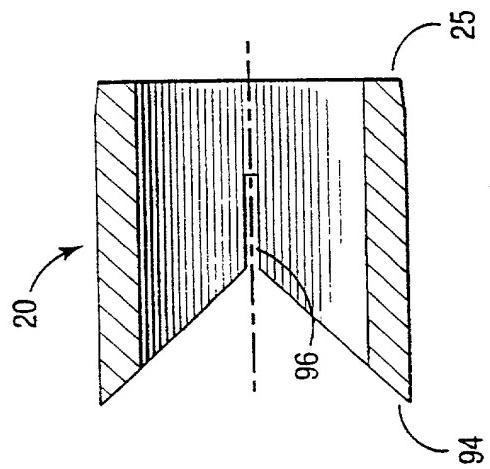


FIG 15

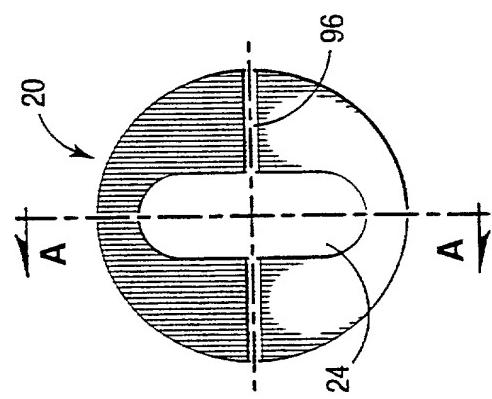
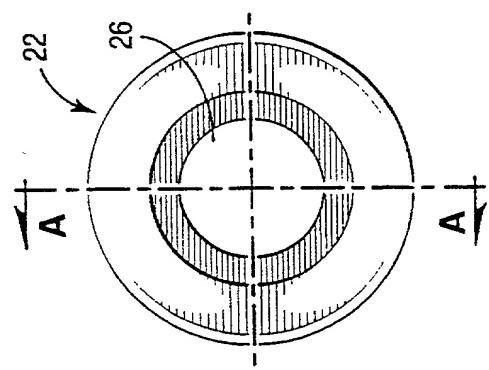
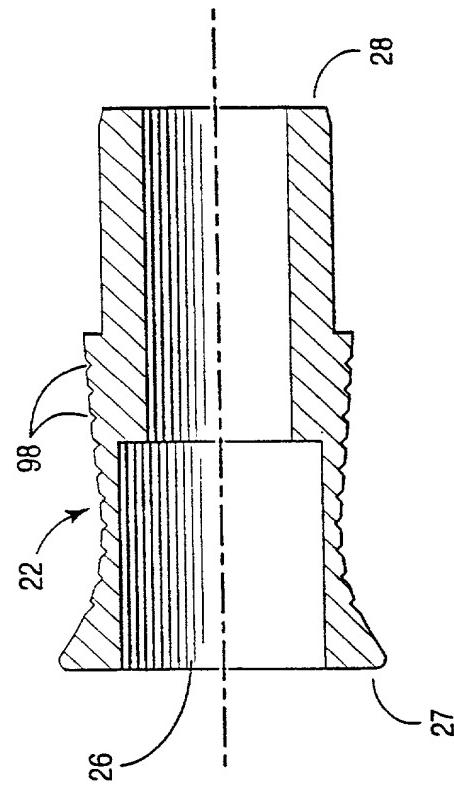
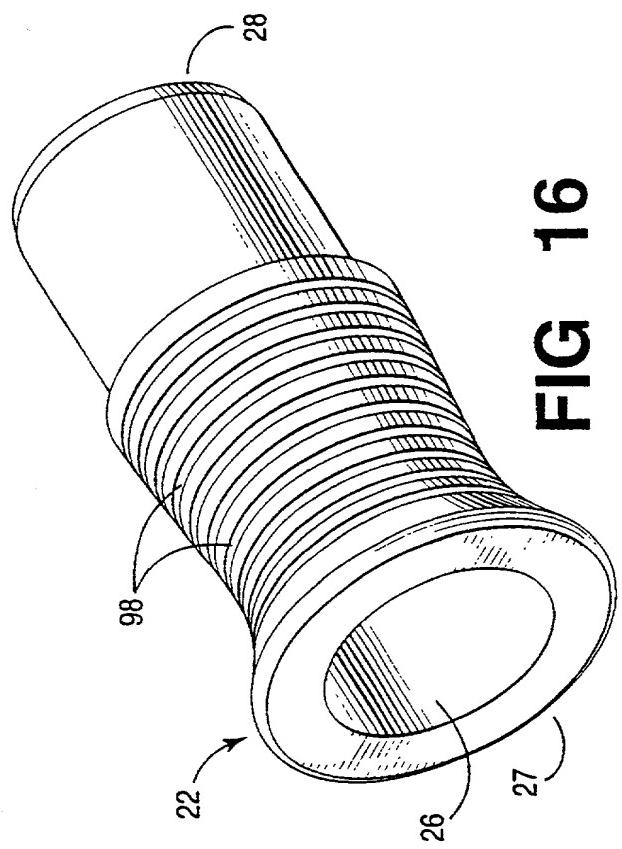
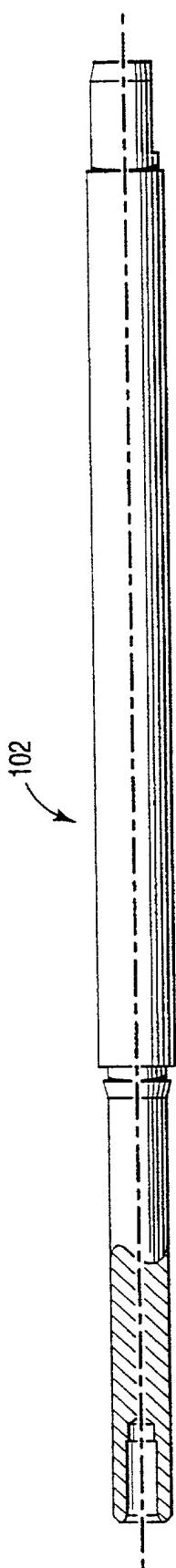
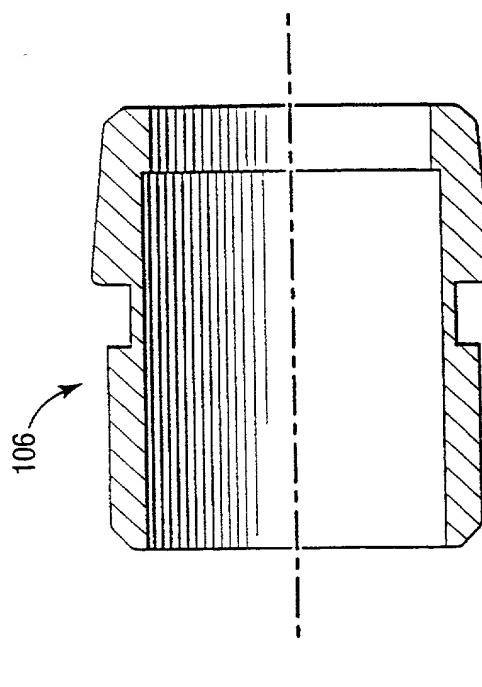
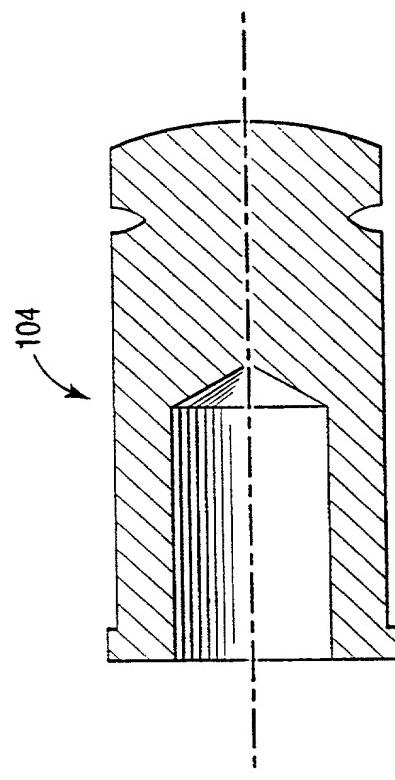


FIG 14

7/8



8/8

**FIG 19****FIG 21****FIG 20**

<b>FOR UTILITY PATENT APPLICATION 37 C.F.R. § 1.63</b>		Attorney Docket No.	40198/181160 (CAN100)	
<input checked="" type="checkbox"/> Declaration submitted with initial filing		<input type="checkbox"/> Declaration submitted after initial Filing (Surcharge (37 CFR 1.16(e)) required)	First Named Inventor	Michael S.G. Bell
		<b>COMPLETE IF KNOWN</b>		
		Application Number	09/937542	
		Filing Date		
		Group Art Unit		
		Examiner Name		

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

**SCALPEL ASSEMBLY**

the specification of which (check only one item below):

- is attached hereto
- was filed as United States Application Serial No. \_\_\_\_\_ on \_\_\_\_\_ and was amended on \_\_\_\_\_ (if applicable).
- was filed as PCT International Application Number PCT/IB00/00426 on 07 April 2000 and was amended under PCT Article 19 on \_\_\_\_\_ (if applicable).

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the patentability as defined in 37 CFR 1.56.

Prior Foreign Application Number(s)	Country	Foreign Filing Date (MM/DD/YYYY)	Priority Claimed	Certified Copy Attached?
			<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO
			<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO

I hereby claim the benefit under 35 U.S.C. 119(e) of any United States provisional application(s) listed below.

Application Number(s)	Filing Date (MM/DD/YYYY)
60/128,529	April 9, 1999 (04/09/1999)

I hereby claim the benefit under 35 U.S.C. 120 of any United States application(s) or PCT international application(s) designating the United States of America, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application(s) in the manner provided by the first paragraph of 35 U.S.C. 112, I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56 which became available between the filing date of the prior application(s) and the national or PCT international filing date of this application:

U.S. APPLICATIONS		STATUS (Check One)		
U.S. Application Number	U.S. Filing Date (MM/DD/YYYY)	Patented	Pending	Abandoned
<b>PCT APPLICATIONS DESIGNATING THE U.S.</b>				
PCT Application No.	PCT Filing Date	U.S. Serial Numbers Assigned (if any)		

**POWER OF ATTORNEY:** As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. (List name and registration number)

Roger T. Frost 22,176; Charles Y. Lackey 22,707; Anthony B. Askew 24,154; John M. Harrington 25,592; Robert E. Richards 29,105; Donald R. Andersen 28,280; John S. Pratt 29,476; A. Jose Cortina 29,733; James L. Ewing, IV 30,630; Stephen M. Schatzel 31,418; James D. Johnson 31,771; Charles W. Calkins 31,814; Larry A. Roberts 31,871; Jamie L. Greene 32,467; George T. Marcou 33,014; Dean W. Russell 33,452; Richard T. Peterson 35,320; Charles T. Simmons 35,539; Tracy W. Druse 35,493; Eleanor M. Musick 35,623; Nora M. Tocups 35,17; Bruce D. Gray 35,799; Theodore R. Harper 35,890; Geoff L. Sutcliffe 36,348; Dean W. Russell 33,452; Leona G. Young 37,266; David P. Lecroy 37,869; Suzanne Seavello Shope 37,933; Mitchell G. Stockwell 39,389; Jeffrey B. Arnold 39,540; Sul Kang 39,723; Mary Anthony Merchant 39,771; Brenda Ozaki Holmes 40,339; Lisa J. Moyles 40,732; Michael J. Turton 40,852; Yoncha L. Kundupoglu 41,130; Scott Zimmerman 41,390; Alana G. Kriegsman 41,747; Theodore M. Green 41,801; J. Steven Gardner 41,773; Joni Stutman 42,173; Heather D. Carmichael 42,389; Thomas A. Corrado 42,439; John K. McDonald 42,860; Sima Singadia Kulkarni 43,742; Camilla C. Williams 43,992; Christopher J. Chan 44,070; Li K. Wang 44,393; John W. Ball, Jr. 44,433; Dawn-Marie Bey 44,442; Tiep H. Nguyen 44,465; John M. Briski 44,562; Michael J. Dimino 44,657; Kristin L. Johnson 44,807; J Jason Link 44,874; Paul E. Nowlton 44,842; Cheryl L. Huserman 45,392; Shelby B. Grier 45,785; Jennifer R. Seng 45,851; Vaibhav P. Kadaba 45,865; Greg Moldafsky 46,514; J. Michael Boggs 46,563; Michael K. Dixon 46,665; Tywanda L. Harris 46,758; Kristin D. Mallatt 46,895; Cynthia R. Rothschild 47,040; John C. Alemani 47,384; Geoffrey K. Gavin 47,591; Janina Malone 47,768; Robert M. Stevens 47,972; Aleta A. Mills 47,794; Christopher L. Bernard P48,234; Laura M. Kelley P48,441; Michael A. Bush P48,893

71

I acknowledge the above-listed attorneys and agents and their firm Kilpatrick Stockton LLP represent my employer (if I am an employee and this application has been or will be assigned to my employer) or the entity with which I have contracted (if I am an independent contractor and this application has been or will be assigned to such entity) and in such cases do not represent me individually. I further acknowledge I have not established, nor will I seek to establish, any personal attorney/client relationship with Kilpatrick Stockton LLP in connection with this application and understand that, should I require legal representation, I will obtain such, at my expense, other than through Kilpatrick Stockton LLP.

Send Correspondence to:

John S. Pratt, Esq.  
Kilpatrick STOCKTON LLP  
1100 Peachtree Street, Suite 2800  
Atlanta, GA 30309-4530  
Phone: (404) 815-6367  
Fax: (404) 815-6555



23370

PATENT TRADEMARK OFFICE

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statement may jeopardize the validity of the application or any patent issuing thereon.

Name of Sole or First Inventor:	Michael S.G. Bell	Date:	Sept 18/01
Inventor's Signature and Date:			
Residence Address and Citizenship:	Ottawa, Ontario ONC	Citizenship	Canada
Post Office Address:	718 Island Park Drive, Ottawa, Ontario K1Y 0B7 CANADA		
Name of Additional Joint Inventor, if any:	Leonard G. Lee	Date:	
Inventor's Signature and Date:			
Residence Address and Citizenship:	Almonte, Ontario ONC	Citizenship	Canada
Post Office Address:	RR#1, Almonte, Ontario K0A 1AO CANADA		
Name of Additional Joint Inventor, if any:	Michael T. O'Malley	Date:	Sept 14, 2001
Inventor's Signature and Date:			
Residence Address and Citizenship:	Appleton, Ontario ONC	Citizenship	CANADA
Post Office Address:	1 Church Street, Appleton, Ontario K01 1AO CANADA		
Name of Additional Joint Inventor, if any:	Timothy J. Maxwell	Date:	Sept 14, 2001
Inventor's Signature and Date:			
Residence Address and Citizenship:	Kanata, Ontario	Citizenship	CANADA
Post Office Address:	1113 March Road, Kanata, Ontario K2K 1X7 CANADA		